

A NEW SPECIES OF APACHE FROM CALIFORNIA

(Homoptera:Derbidae)

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In 1957 several specimens of the otiocerine genus *Apache* were collected in different types of fruit fly traps used by the California Department of Agriculture. These specimens were found to differ from other known species of this genus.

Specimens were trapped in California only in Solano County in 1957, but during 1958 they were found in Colusa, Glenn, Lake, Placer, Sacramento, Tehama, Yolo and Yuba counties, and in 1959 a single specimen was collected from San Luis Obispo County.

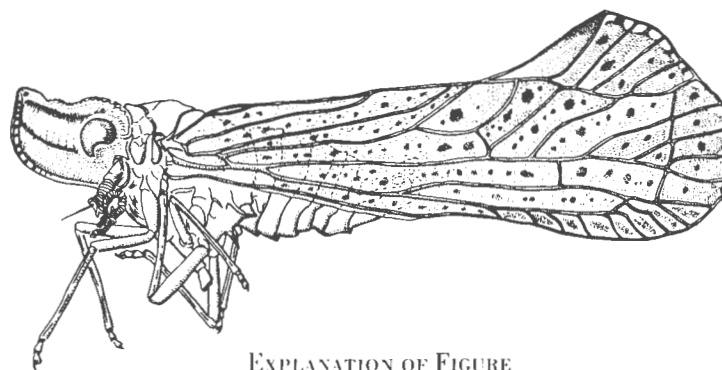
The major insect collections of the western United States were canvassed to see if specimens of this species were present. None were found outside of California. Several specimens were found in the University of California collection at Davis, dating back to 1953, from the counties of Shasta and Tehama. These were all collected in light traps of some type. One specimen was in the collection of the California Academy of Sciences, collected by E. P. Van Duzee at Cazadero, Sonoma County in 1918, and a single male was found in the collection of the California Insect Survey, University of California, Berkeley. This specimen was collected at Orangevale, Sacramento County, August 9, 1938, by Quentin Tomich.

Eight specimens (2♂♂ and 6♀♀) in the collection of the University of British Columbia, determined as *Apache degeeri* Kirby from various locations in British Columbia, were checked and found to be *degeeri*. These represent the only records of this species west of the Rocky Mountains as far as is known.

Considerable effort has been made to find the host association of the new species. To date this has been unsuccessful. In the eastern part of the United States, other members of the Otiocerini have

been collected on beech, hickory, maple, oak and willow.

The types of fruit fly traps used and the lures are as follows: Steiner trap—"Siglure" with methyl eugenol and anisyl acetate; Frick trap—ammonium carbonate; and the McPhail trap—brown sugar, yeast and pyridine. All specimens taken in these traps were males, whereas both sexes were attracted to light traps.



EXPLANATION OF FIGURE

Fig. 1. *Apache californicum* Wilkey, new species.*Apache californicum* Wilkey, new species

(fig. 1)

Length of male: 9.5 mm to 11.0 mm. Length of female 10.0 mm to 11.0 mm.

General color rosaceous, varying from pale to quite dark. Thorax pale orange with a rather wide, white medial stripe. Basal segments of antenna whitish, remaining segments and subantennal process reddish, darker than other rosaceous parts. Legs white. Veins of elytra reddish, cells slightly opaque with brownish spots and markings.

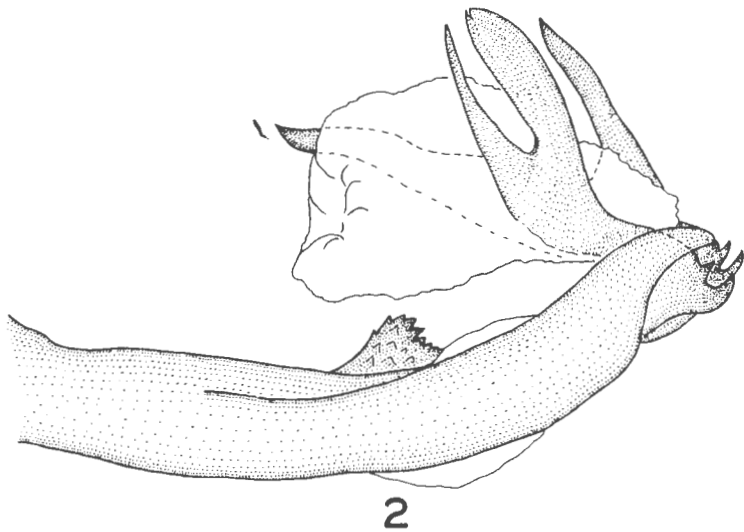
Head compressed laterally, forming a frontal groove, in profile rectangular, dorsal margin undulate, minutely notched along basal three-fourths (notches filled with a powdery wax), apex acute and slightly upturned. A swollen rectangular area present laterally between eye and frontal margin. Black markings present on frontal and ventral margins of head.

Anal segment of the male (fig. 3), in lateral view, acutely angular, forming a direct right angle, with a pair of sclerotized teeth at apex. Segment distinctly indented at inside angle. Flagellum of aedeagus (fig. 2) with 3 sclerotized processes, one forked appearing as two. Apical process of aedeagus almost straight, acutely pointed. Flagellum with 2 pairs of basal hooks. Shaft of aedeagus with a dorsal keel, serrate along margin, and toothed laterally.

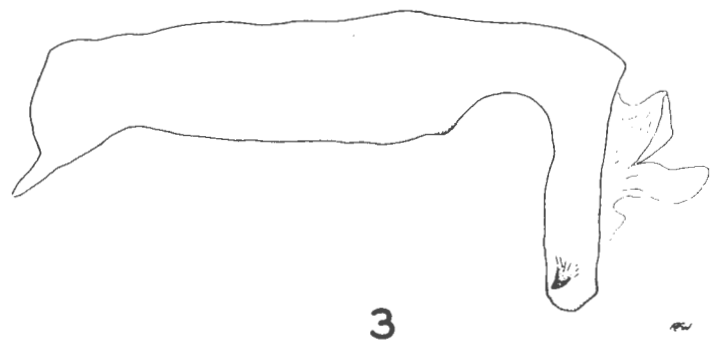
Genital style in lateral view with apex upturned and very blunt, style with 2 dorsal protuberances, the larger one flattened on top, the other roundly pointed.

No appreciable difference could be detected between the female of this species and *Apache degeeri* Kirby which it resembles quite closely. The males also are superficially very similar. However, the difference in the male genitalia is sufficient to easily separate the two species.

The 2 pairs of hooks at the base of the flagellum in *A. cali-*



2



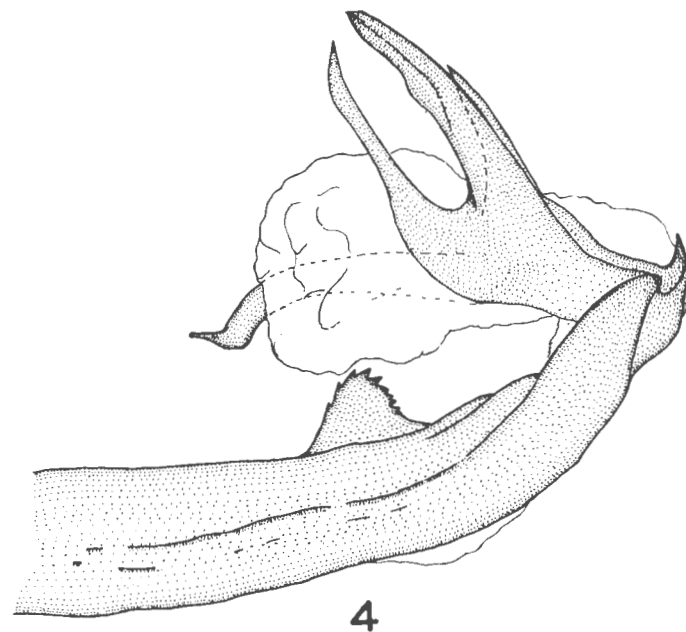
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EXPLANATION OF FIGURES

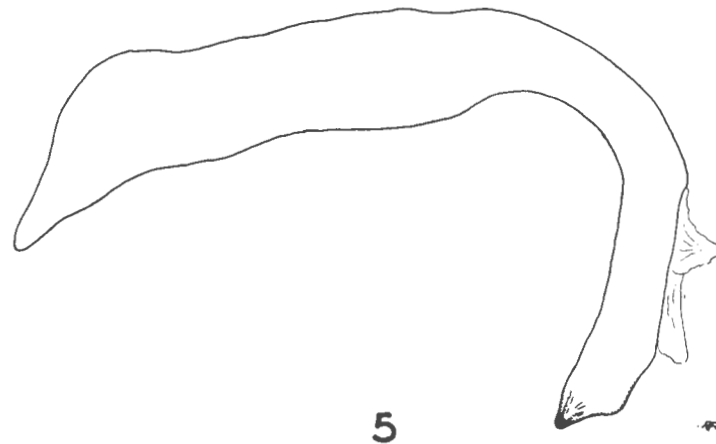
Figs. 2 and 3. *Apache californicum* Wilkey: fig. 2, aedeagus of male; fig. 3, anal segment of male.

Figs. 4 and 5. *Apache degeeri* Kirby: fig. 4, aedeagus of male; fig. 5, anal segment of male.

fornicum is the strongest differentiating character, *A. degeeri* having only a single pair (fig. 4). The presence of lateral teeth on the keel, the different shape of the anal segment of *A. degeeri* (fig. 5), and the different shape of apical aedeagal process (fig. 4) strengthens the position of *californicum* as a separate species.



4



5

Holotype male [CDA 57G19-6], VACAVILLE, SOLANO COUNTY, CALIFORNIA, 17-VII-1957, J. M. Marston. Allotype female, Anderson, Shasta Co., California, 8-VII-1955, Joe Willis. Paratypes (all California).—Amador County: Drytown, July, 1961 [61H1-3], Leland Brown, Frick trap (1♂). Colusa County: Colusa, 9-IX-1958 [58I16-36], A. K. Raymond, Steiner trap (3♂♂). Lake County: Kelseyville, 7-VII-1958 [58G10-22], Tom Pierce, Steiner trap (3♂♂). Placer County: Loomis, 1-VIII-1958 [58H7-3] (1♂), 1-VIII-1958 [58H13-332] (4♂♂ — on slides), 29-VIII-1958 [58I2-4] (1♂), 10-IX-1958 [58I8-17] (1♂), all A. K. Raymond, Steiner traps. Sacramento County: Orangevale, 9-VIII-1938, Quentin Tomich (1♂); Rio Linda, 10-IX-1956, Jack Fowler, light trap (1♂). San Luis Obispo County: Santa Margarita, 21-VII-1959 [59H12-1], R. M. Drake, McPhail trap (1♂). Shasta County: Anderson, 4-VII-1955, Joe Willis (1♂, 1♀); Redding, 1954, Joe Willis (2♂♂). Solano County: Pleasant Valley, 23-VIII-1957, J. M. Marston, Steiner trap (2♂♂); Vacaville, 26-VI-1957 [57G2-1] (1♂), 17-VII-1957 [57G19-6] (1♂), 24-VII-1957 [57G29-103] (1♂), all J. M. Marston, Steiner traps. Tehama County: Dairyville, 3-VII-1956 (1♂), 9-VII-1956 (1♂), E. Yoemann; Los Molinos, 24-VII-1956 (1♀), 5-X-1956 (1♀), E. Yoemann, light traps; Red Bluff, 13-VII-1953 (1♂), 20-VII-1956 (1♂), E. Yoemann, light traps. Tuolumne County: Strawberry, 11-VIII-1960, D. Q. Cavagnaro (1♀). Yolo County: West Sacramento, 6-XI-1958 [58K20-2], Jim Yant, Steiner trap (1♂).

The holotype and allotype as well as paratypes are deposited in the type collection of the California Department of Agriculture, Bureau of Entomology, Sacramento, California (CDA).

Paratypes are also to be deposited in the collections of the following institutions: United States National Museum, California Academy of Sciences, University of California at Berkeley and Davis.

MEETING NOTICE

The 1963 National meeting of the Entomological Society of America will be held at the Sheraton-Jefferson Hotel in St. Louis, Missouri on December 2 through 5.—*Editor*.